

FIG. 1A PRIOR ART

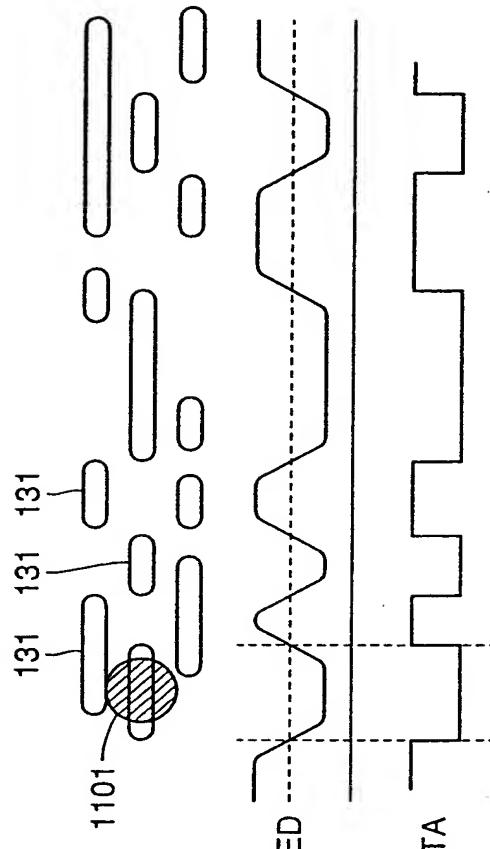


FIG. 1B PRIOR ART
QUANTITY OF REFLECTED
LIGHT BEAM

FIG. 1C PRIOR ART
REPRODUCED DATA

FIG.2 PRIOR ART

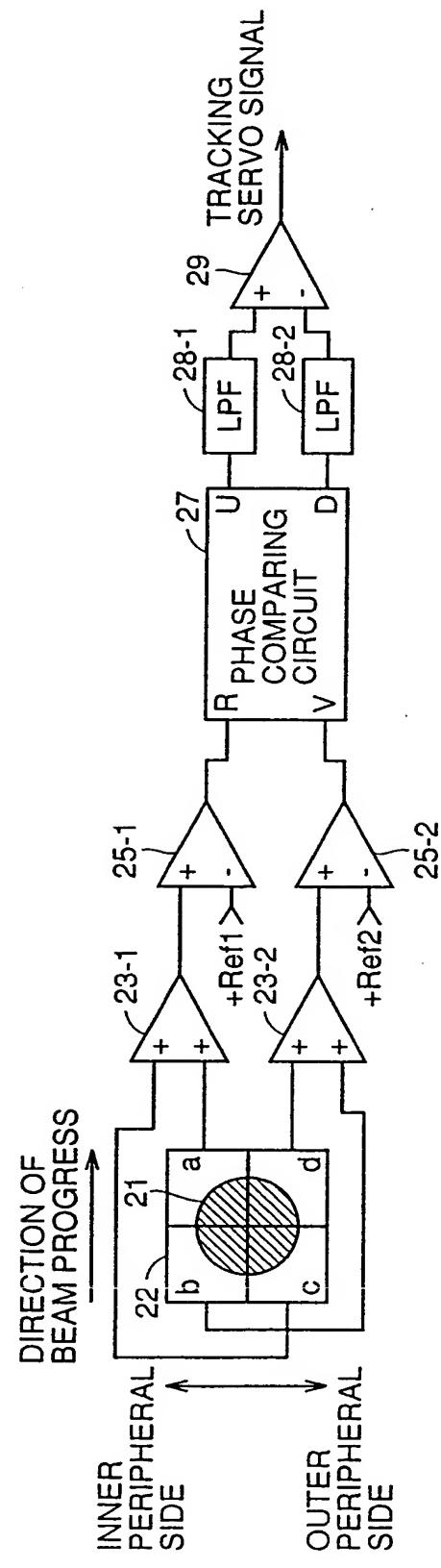


FIG. 3 PRIOR ART

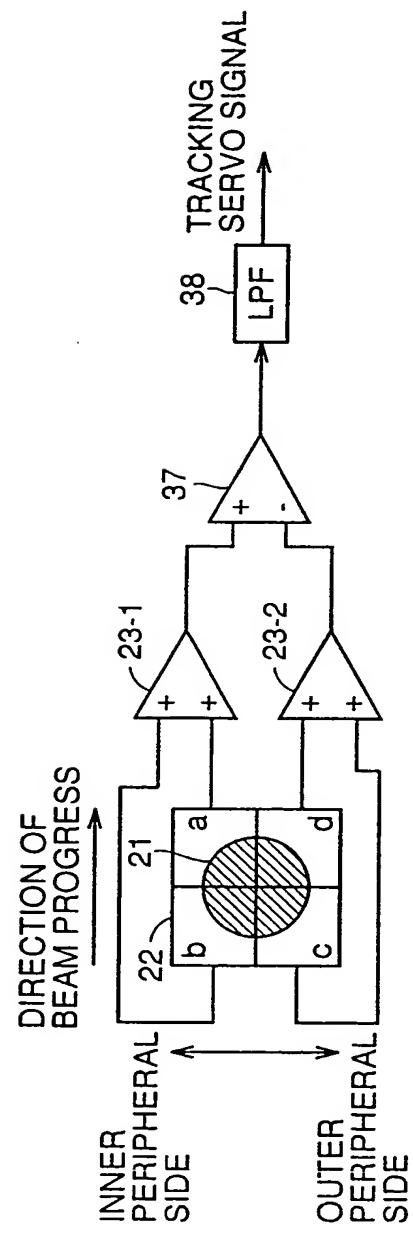


FIG.4

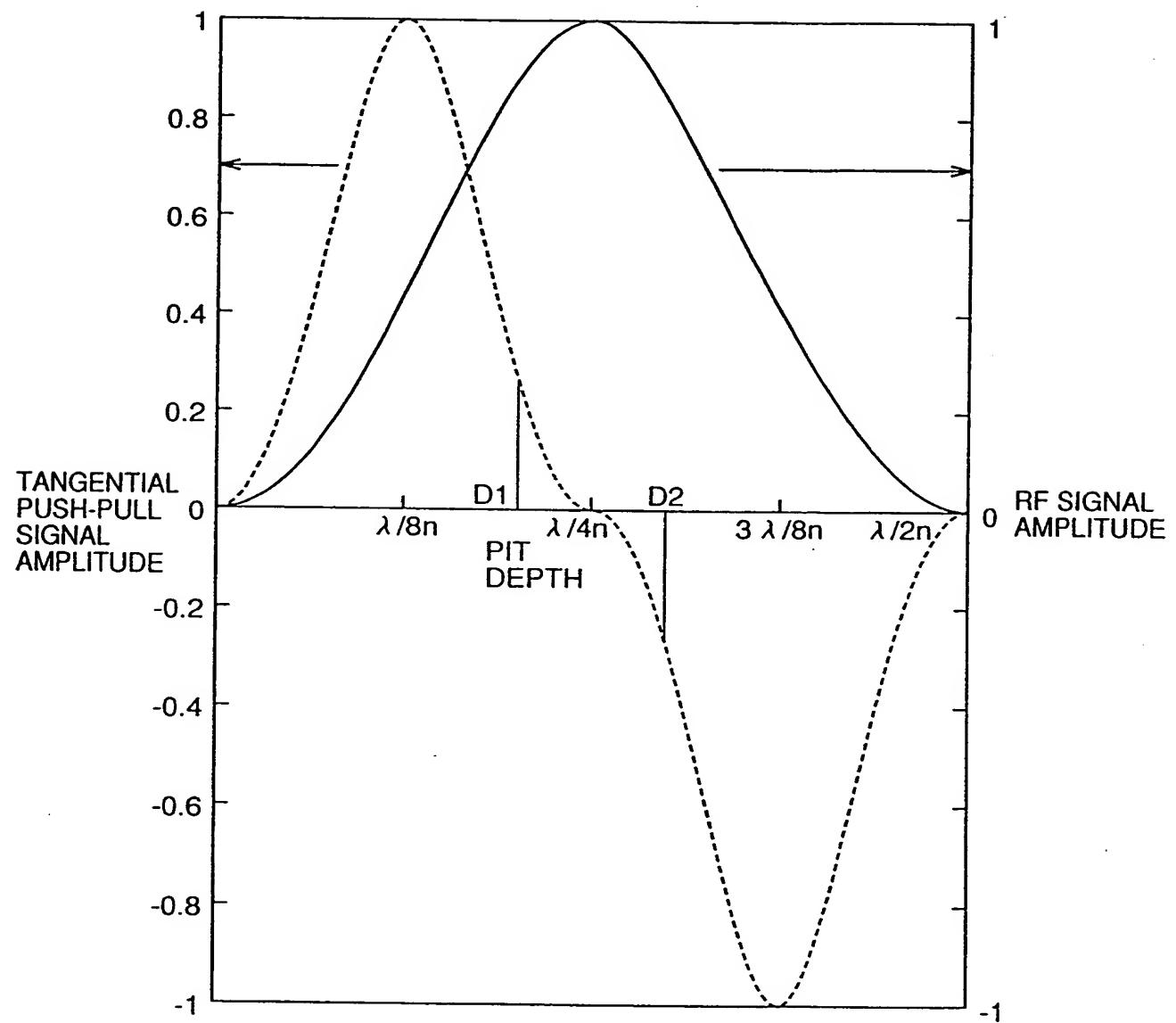


FIG.5A

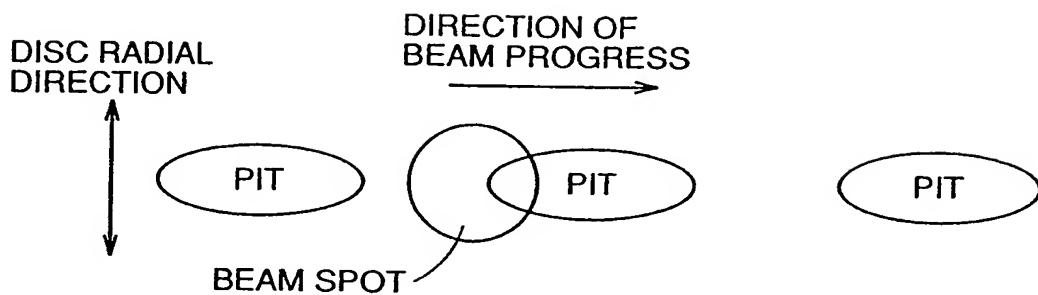
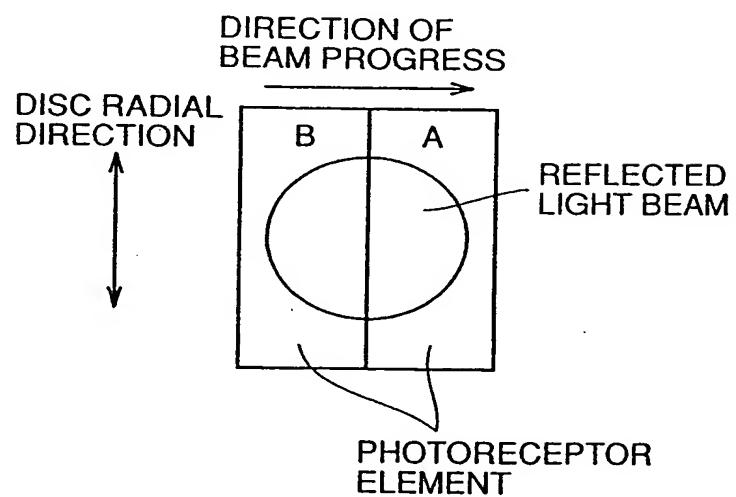
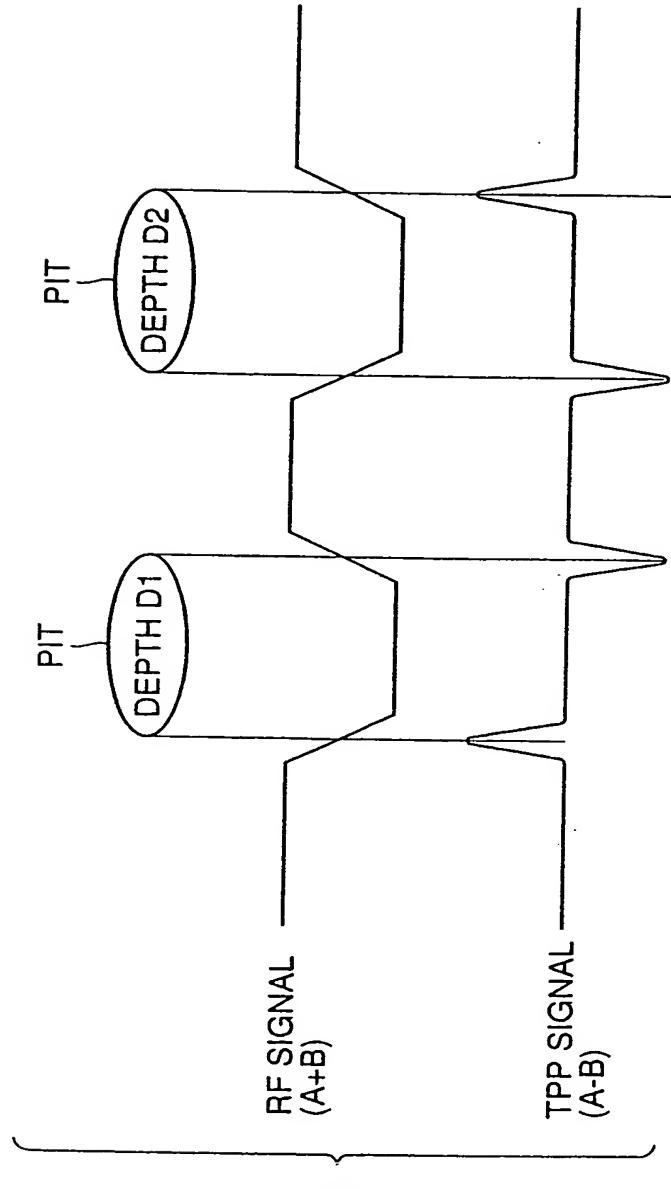


FIG.5B





F/G.6

FIG.7

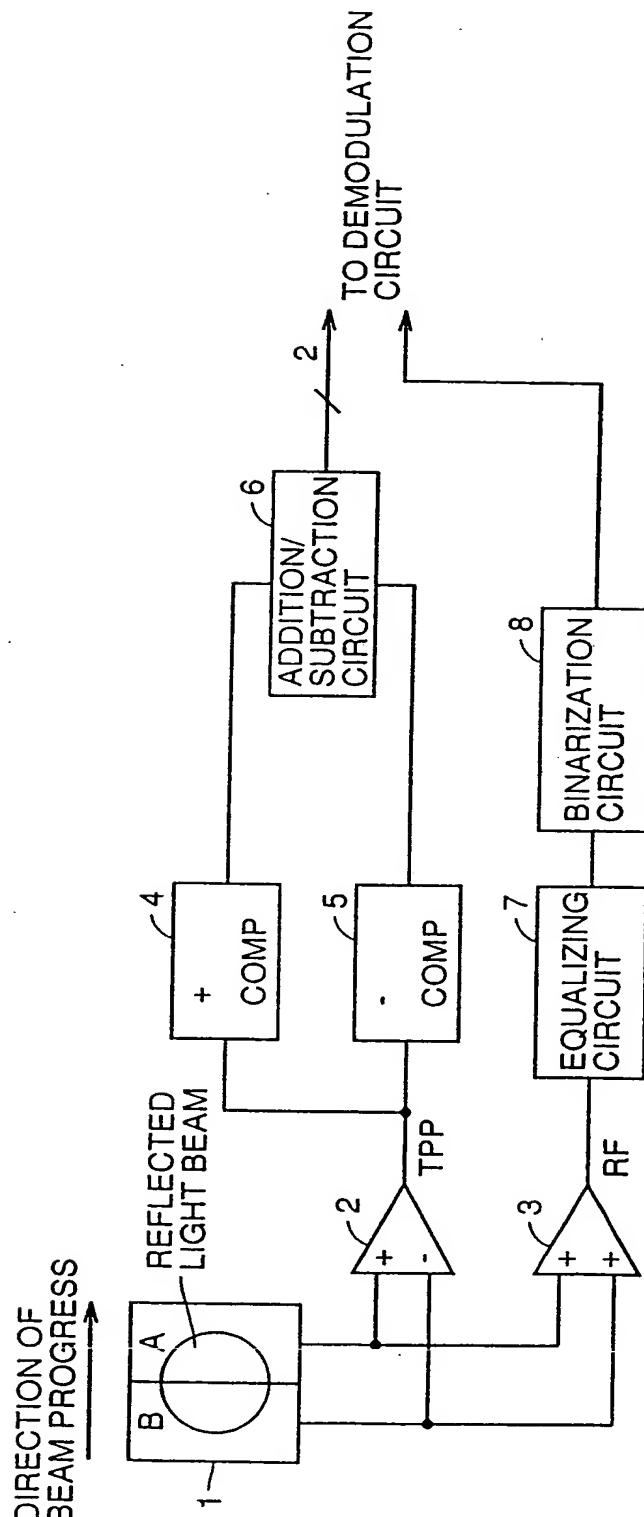


FIG.8A

RF SIGNAL

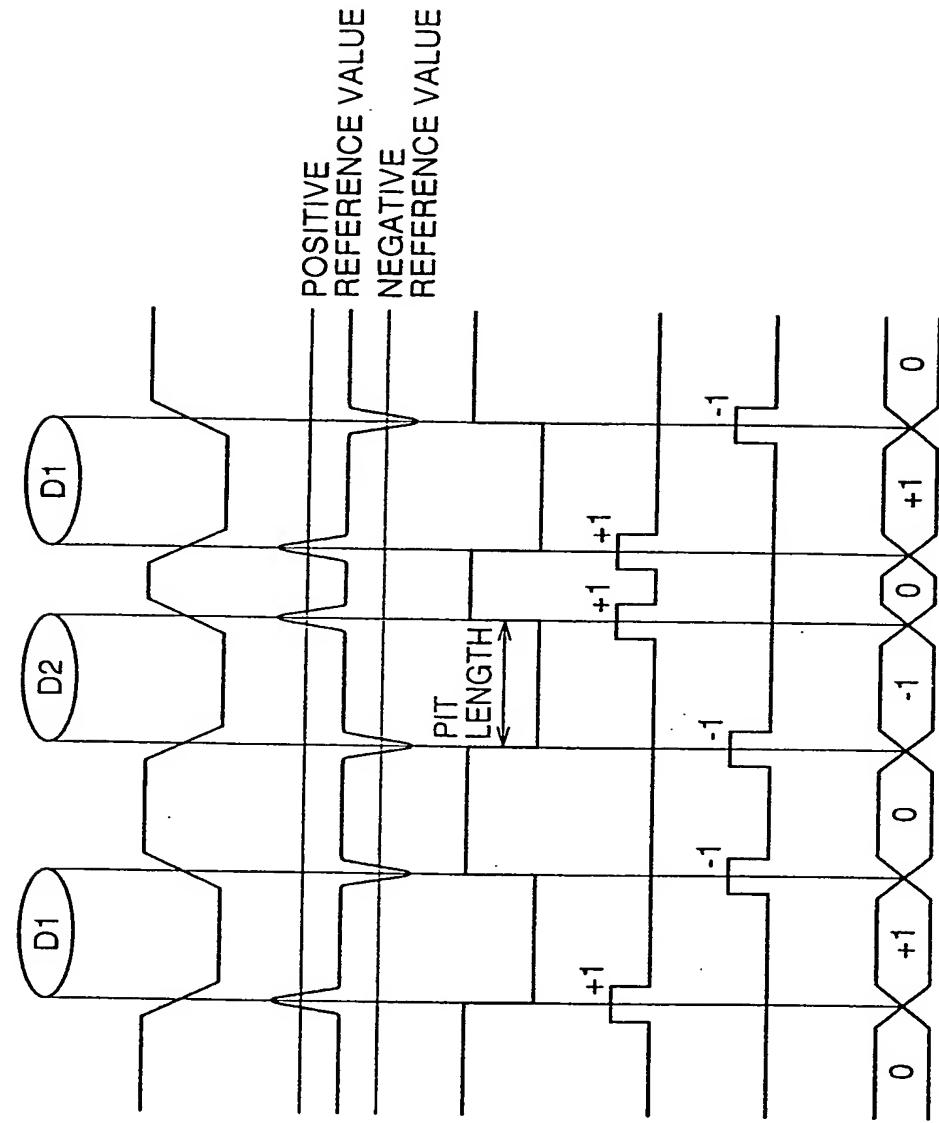


FIG.8C

TPP SIGNAL
BINARIZATION
SIGNAL

POSITIVE
REFERENCE VALUE
NEGATIVE
REFERENCE VALUE

PIT
LENGTH

OUTPUT
SIGNAL FROM
COMPARATOR 4

OUTPUT
SIGNAL FROM
COMPARATOR 5

BINARY OUTPUT
SIGNAL

FIG.8E

OUTPUT
SIGNAL FROM
COMPARATOR 4

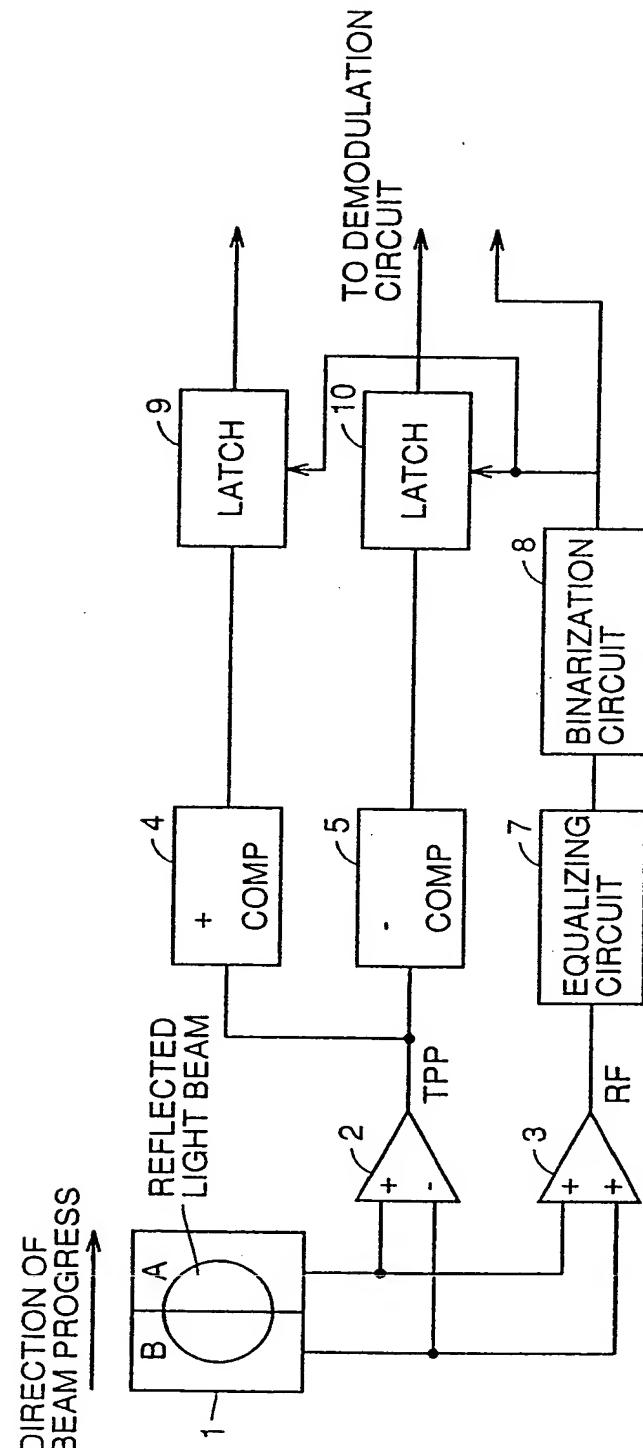
FIG.8F

OUTPUT
SIGNAL FROM
COMPARATOR 5

FIG.8G

BINARY OUTPUT
SIGNAL

FIG.9



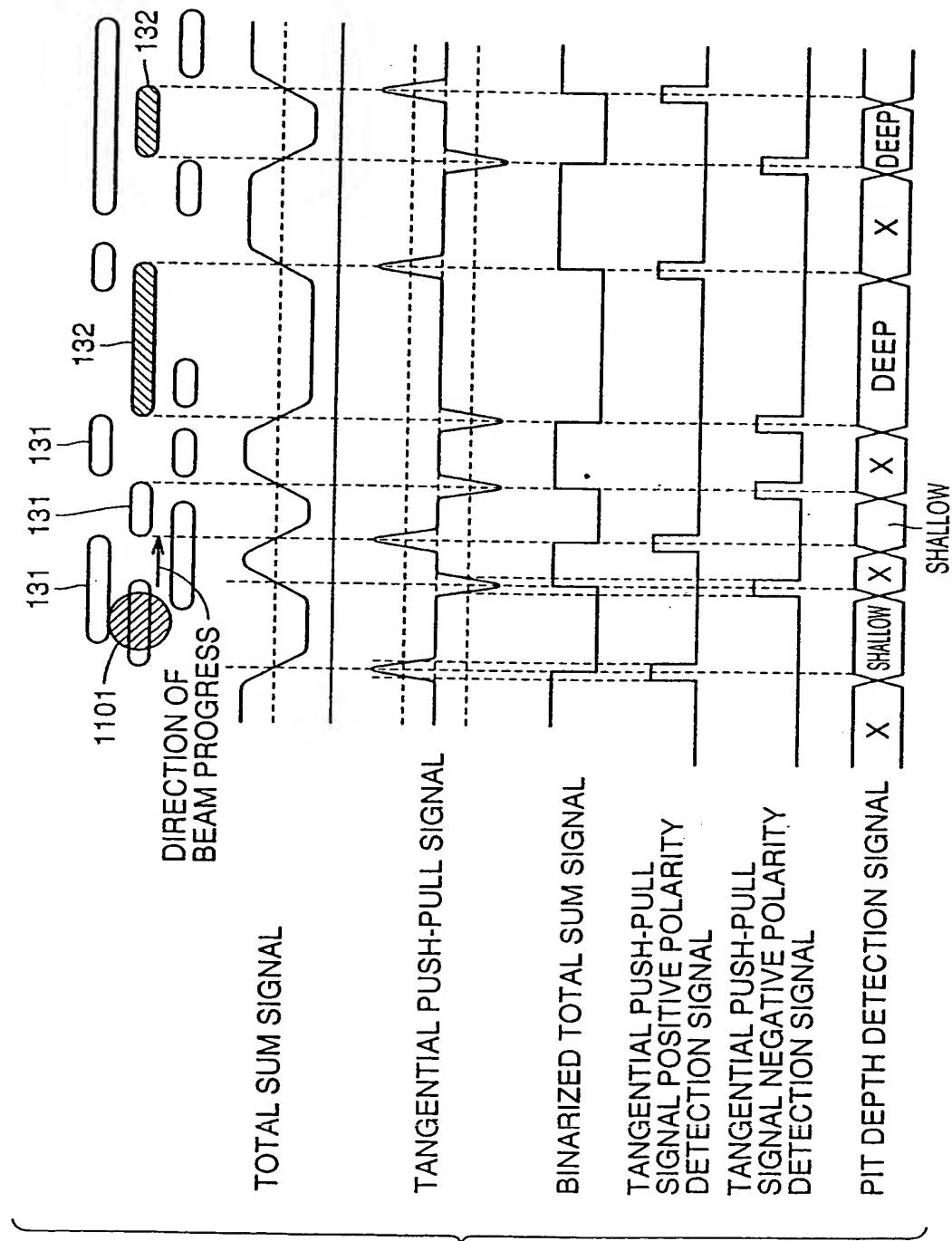


FIG. 10

FIG. 11

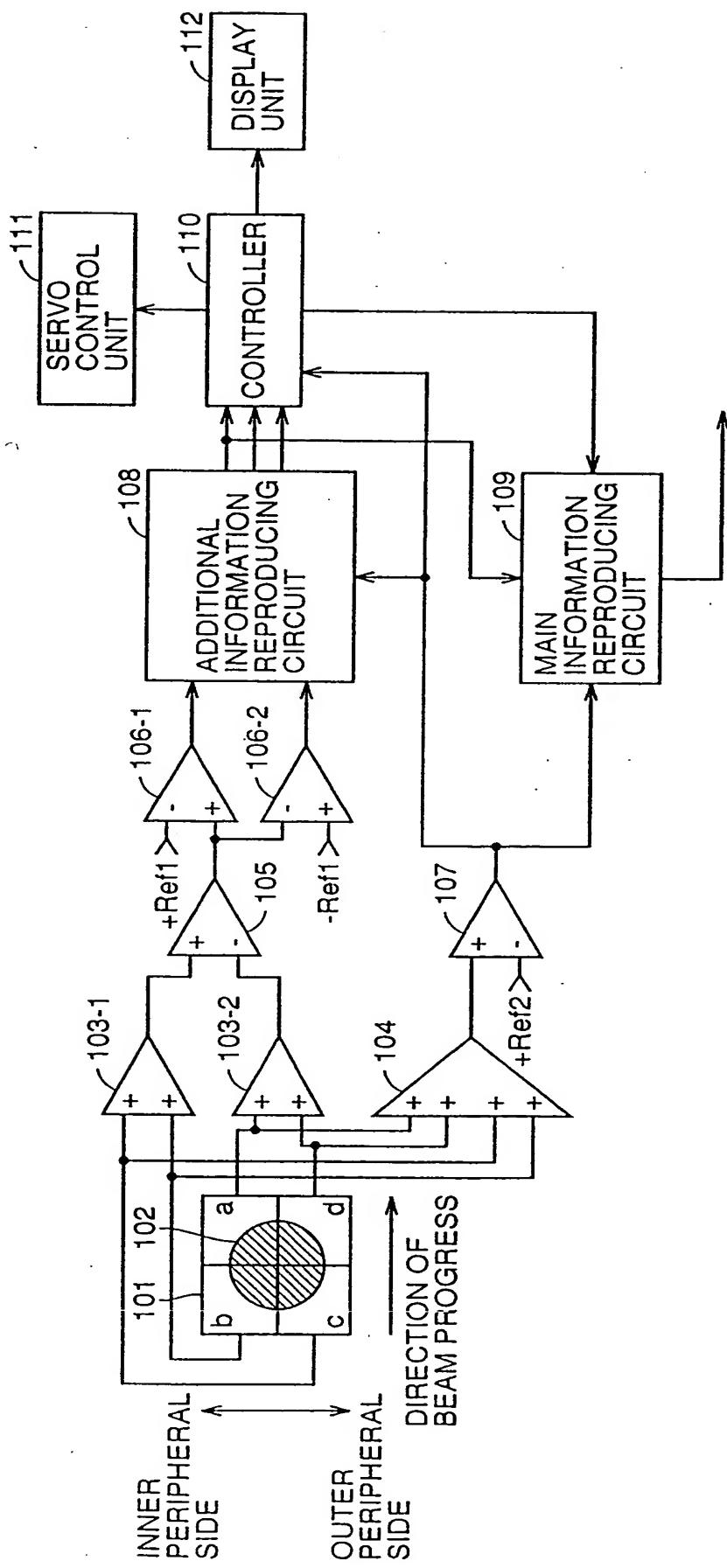
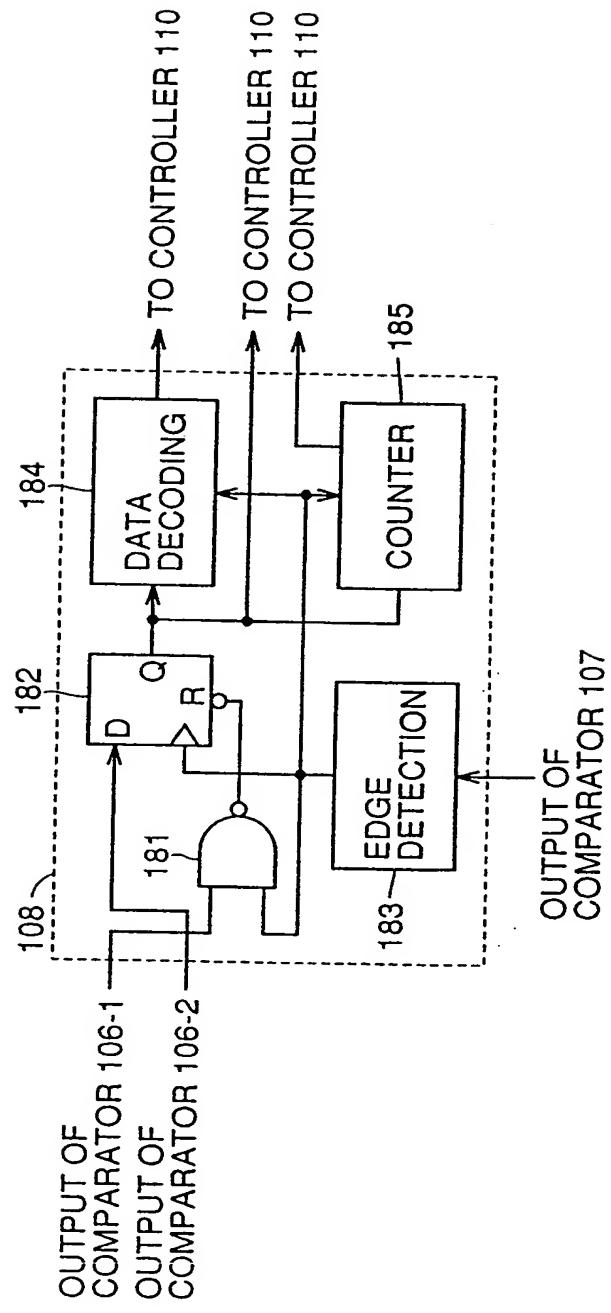


FIG. 12



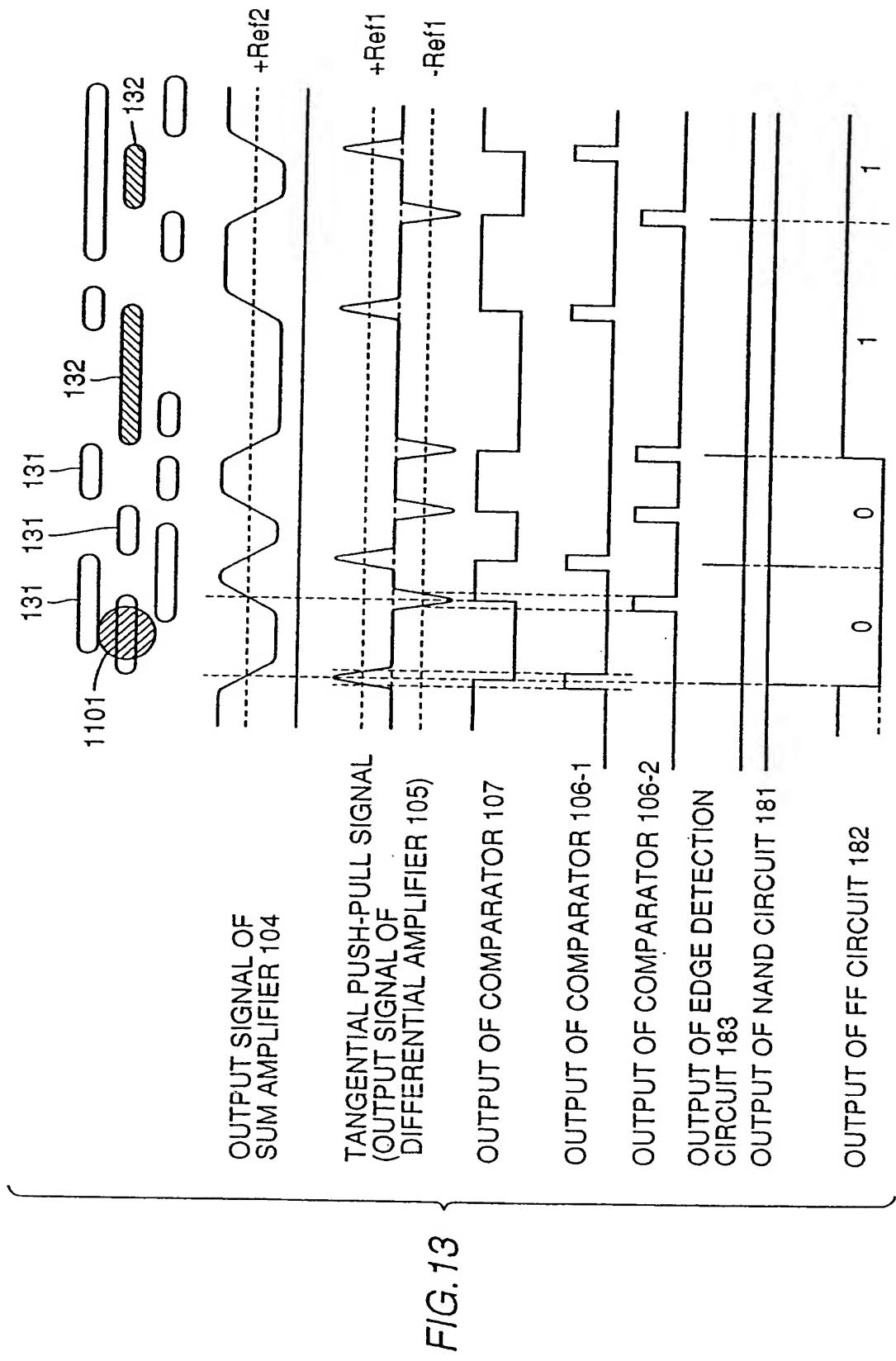
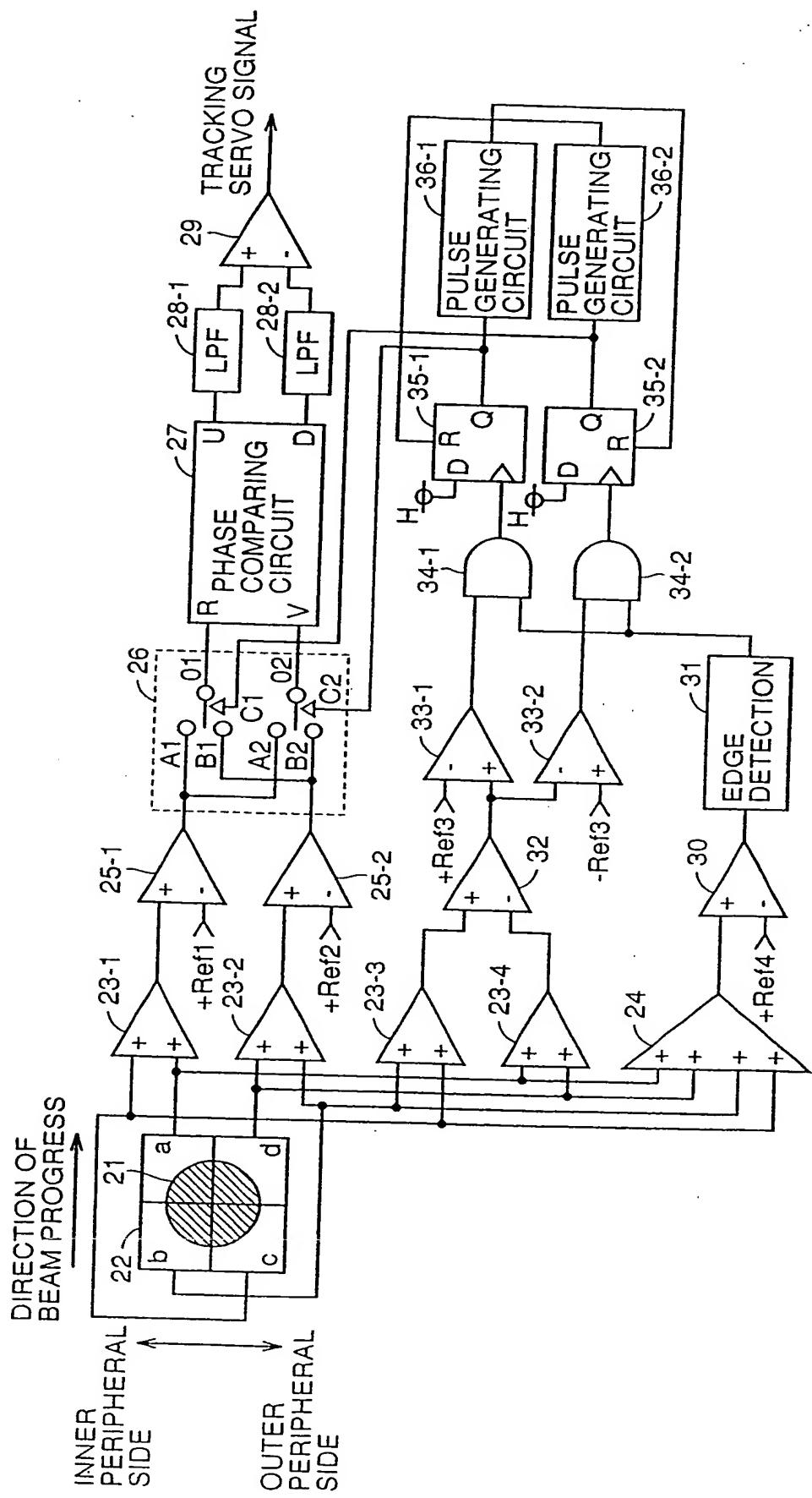


FIG. 14



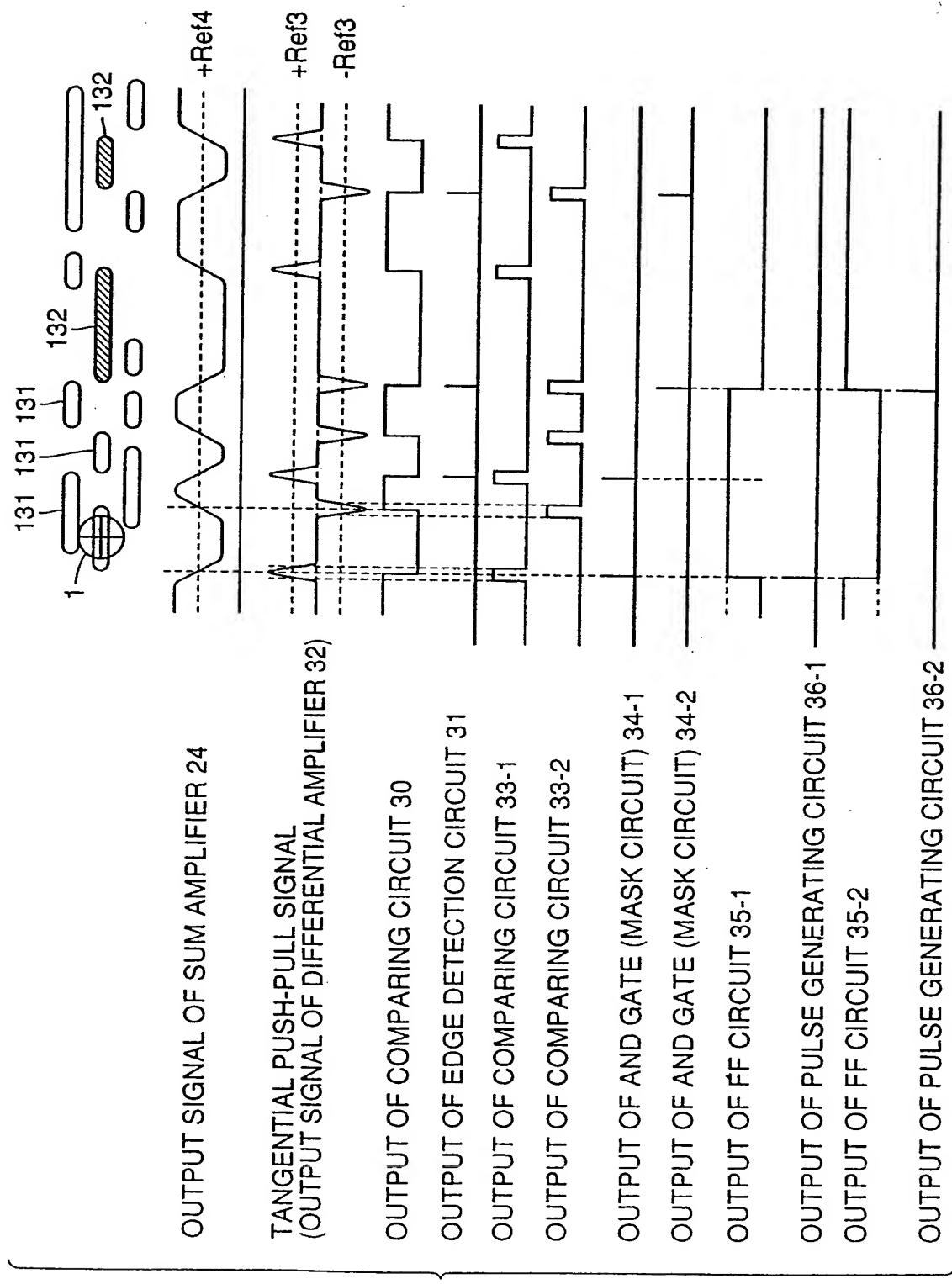


FIG. 15

FIG.16

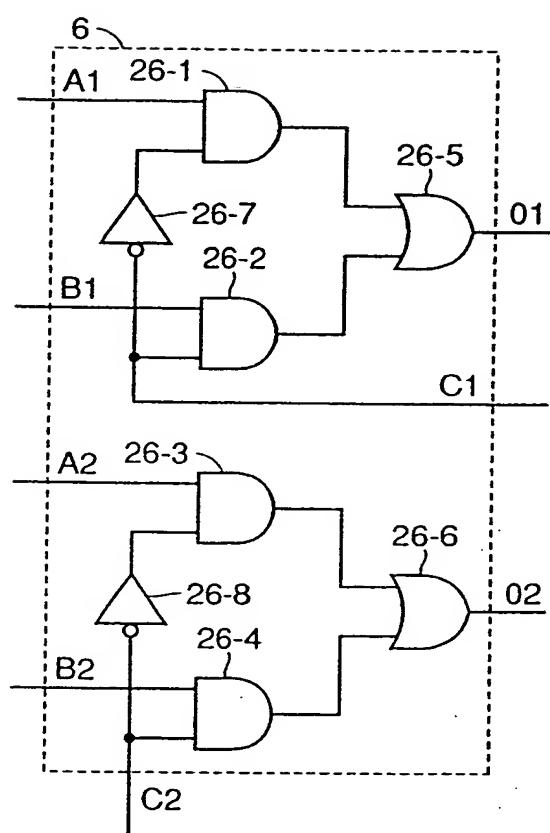


FIG. 17

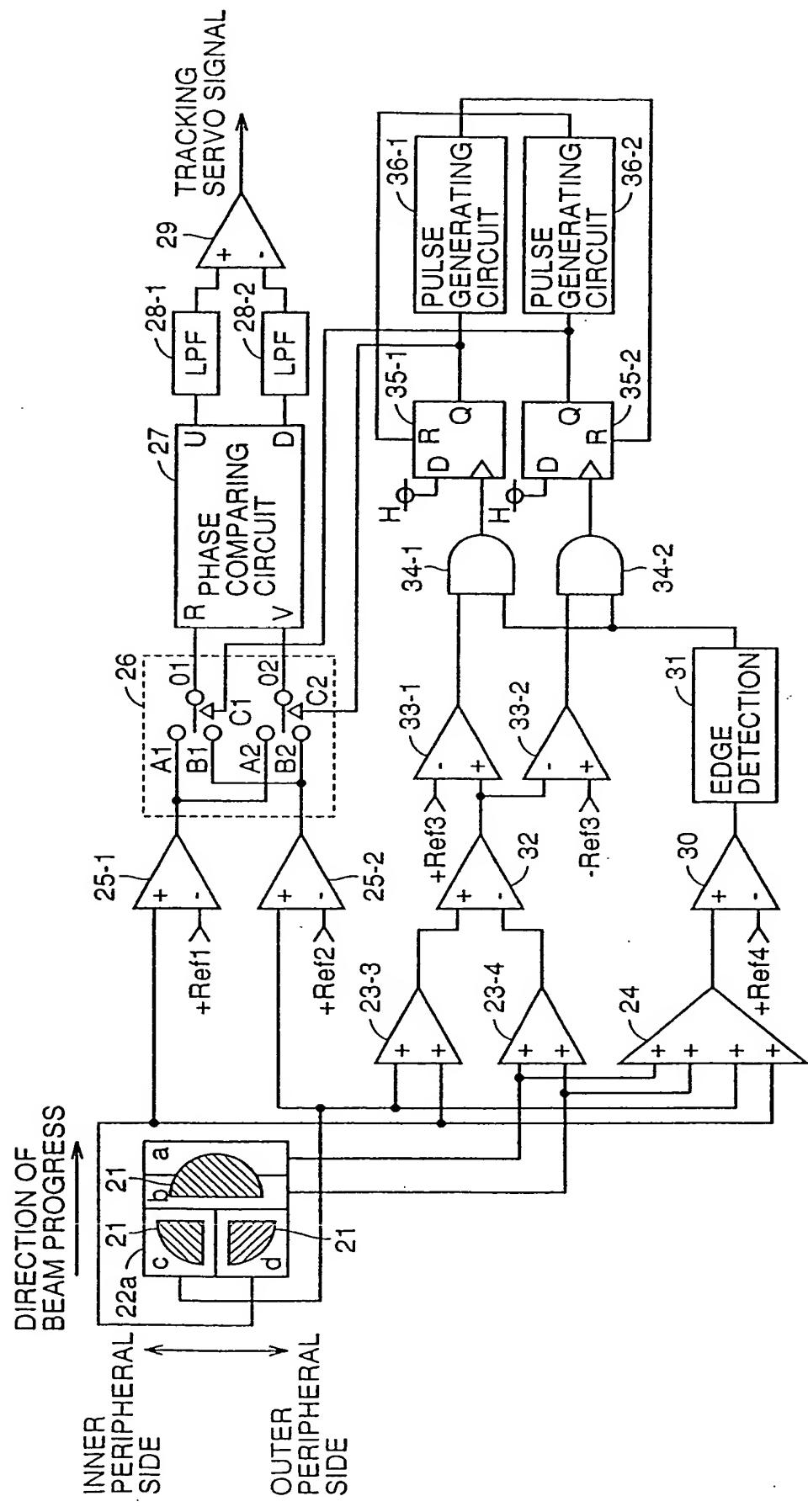


FIG. 18

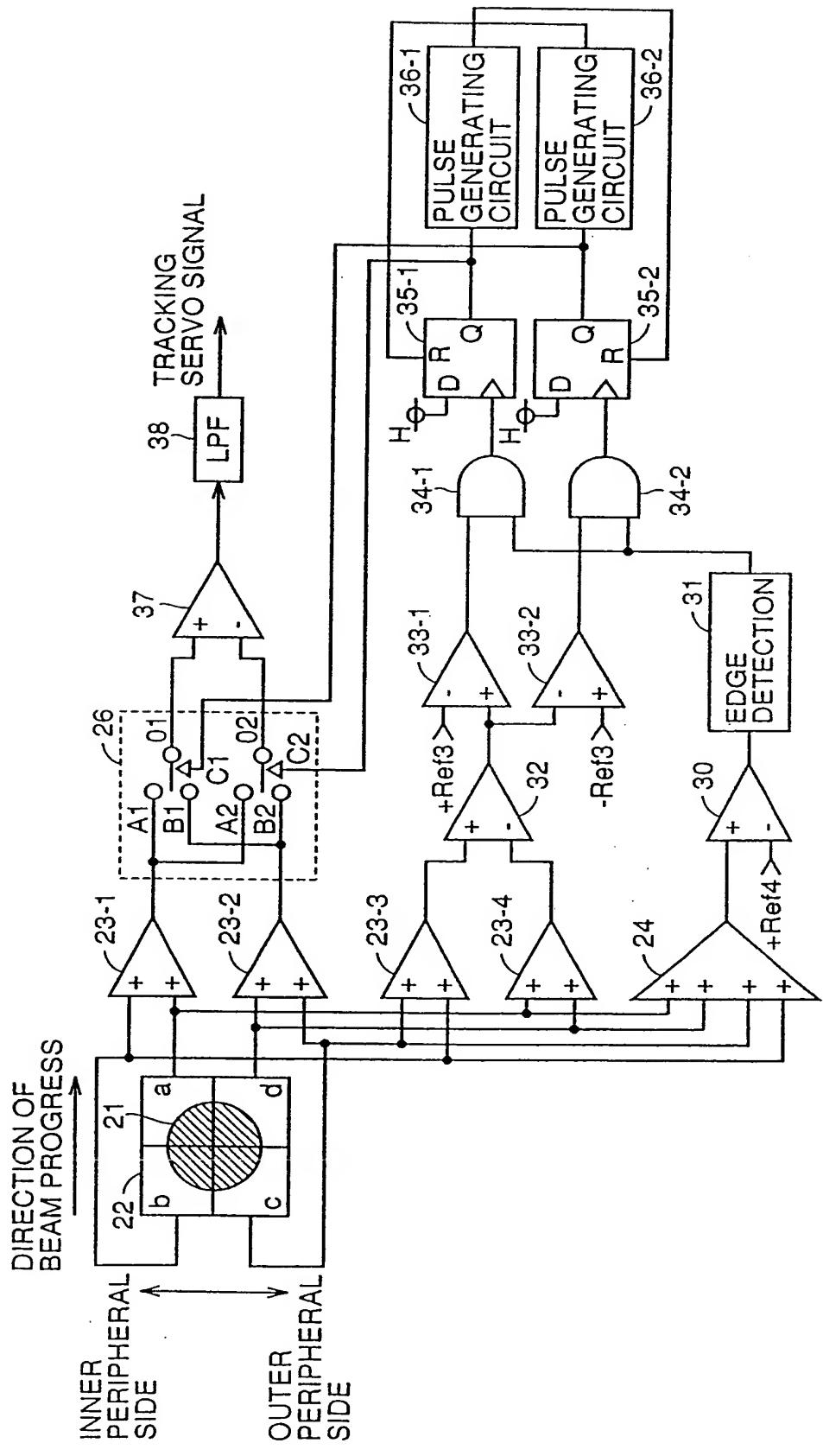


FIG. 19

